# A Look Back at the First Women in the Medical Service Corps

**U.S. Navy Bureau of Medicine and Surgery**
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On September 20, 1948, the U.S. Navy selected 21 women for active duty in the Medical Service Corps under the Women's Armed Services Integration Act. Each of these pioneers were former WAVES—Women Accepted for Volunteer Enlisted Service—who had served in various capacities in World War II. And although they are not considered plankowners of the Medical Service Corps, they represent the first women to serve in the Medical Service Corps.

A Trailblazing Aviation Physiologist:

Aviation physiologist Mary Keener was one of 21 women selected for a regular commission in the Medical Service Corps under the Women's Armed Services Integration Act. The Attalla, Alabama native had originally entered the Navy in 1942 as a WAVES (Women Accepted for Volunteer Emergency Service) officer and attended Smith College in Northampton, Mass., for indoctrination and training in communications.

In January 1943, Keener was assigned to work the "Secret Code" room for the Chief of Naval Operations, Adm. Ernest King. She later recalled, "We were essentially cryptographers, breaking various codes, some of which Eleanor Roosevelt used to communicate to President Franklin Roosevelt when she travelled. When we decoded a message that started out 'For the eyes of the President only,' we were not allowed to read the message, but had to call a senior officer to stand over us as we typed out the code."

Over the summer of 1944, a family friend stationed at the Bureau of Personnel offered Keener a chance to go to Pensacola where the Hospital Corps was opening a new field for WAVES officers—aviation physiology. Keener jumped at the opportunity and reported to the School of Aviation Medicine at the Naval Air Station Pensacola, Fla. There she spent the remainder of the war serving as an "oxygen officer," taking new recruits on "altitude runs" in low pressure chambers, demonstrating the effects of hypoxia and giving lectures on the dangers of high altitude. Not long after the war, Keener briefly left naval service and continued her education.

After returning in 1948, Keener helped initiate programs for high altitude training and launch the first ejection seat training for jet aircraft. Over the next two decades, Keener had a front row seat in the new developments in aviation and aerospace medicine. And because of her experience in physiological training, the Navy selected Keener in the 1950s to serve as a Special Medical Expert for the development of the full pressure suit.

During the 1960s, Keener was assigned to the Bureau of Medicine and Surgery (BUMED). Since there was not yet an aviation physiology billet at BUMED, Keener was technically assigned to the Naval Medical Research Institute (NMRI—the forerunner to today's Naval Medical Research Center). As she later remembered, "When I was first assigned to BUMED, I had no desk, no telephone and no parking place. I was assigned to the Aviation Medicine Operations Division and was the first woman officer to be assigned there."

At BUMED, Keener took on the task of recruiting new physiology candidates, producing training films, reviewing aircraft handbooks, writing policy, inspecting the 19 different training activities, approving training aids and overseeing maintenance of training devices. Keener helped institute an annual inspection program of training devices like ejection seats and low pressure chambers to ensure safety.

In 1965, Keener was promoted to the rank of captain making history as the first woman in the Medical Service Corps to hold this rank. At the time of her promotion, she had purportedly trained more aviation personnel in night vision, ejector seat procedures, and low-pressure chambers than any other aviation physiologist in the Navy.

Her collection of “firsts” was not yet complete and in April 1967—when the U.S. Navy Uniform Regulations granted "naval aviation physiologists" the permission to wear aviation wings—Keener was the first to adorn this crest and was designated “Aviation Physiologist No. 1.”

Medical Allied Sciences Section:

Of the first women in the Medical Service Corps, 16 represented various specialties in the Medical Allied Sciences Section (then one of four sections along with Administration and Supply, Optometry and Pharmacy) and included some of the Nation’s leading microbiologists, biochemists, parasitologists and serologists of the era.

Lt. Cmdr. Margaret May Diehm of Reading, Penn., was the most senior of these newly commissioned Medical Service Corps officers. Diehm entered the Navy in 1942 as a WAVES officer, over a decade after earning her PhD in biology from the University of Pennsylvania and serving a biology professor at what was then known as the Drexel Institute (later university) in Philadelphia. In World War II, she was attached to the Navy Medical School where she taught bacteriology and parasitology. Diehm would remain a pivotal figure in the Navy’s tropical medicine and laboratory training programs throughout her career. On January 1, 1950, Diehm and Mary Sproul were promoted to Commander, becoming the first women to reach this rank in the Medical Service Corps.

Lt. Cmdr. Mary Thornton Sproul of Washington, D.C., entered the Navy in 1942 after several years as a blood plasma researcher at the old City Hospital in Washington, D.C. She continued this work in the field and up until 1965—when she retired from service—Sproul was one of the leading blood technologists in the world and helped ensure the purity of whole blood, and blood substitutes like plasma and serum albumin used by military. In the Korean War, Sproul oversaw the shipment of blood into an active combat zone and helped the South Korean Army establish a blood bank.

During the 1950s and 1960s, Sproul was stationed at the Naval Hospital Chelsea, and later the Navy’s Blood Research Laboratory in Boston, where she researched methods for long-term preservation of blood and spearheaded the nascent frozen blood program.

Lt. Margaret “Peg” Stirewalt had obtained her PhD from University of Virginia before entering the Navy as a WAVES. Initially serving as an intelligence officer, she later transferred to the newly established Naval Medical Research Institute (NMRI) in the 1940s where she initiated the Navy’s first schistosomiasis research program.

Serologist Lieutenant Frances Spear and microbiologist Lieutenant (j.g.) Lorraine Friedman made important contributions to the field of infectious disease research while based at the Naval Medical Research Unit No. 1 at the University of California, Berkeley. After leaving the Navy in the 1950s, Friedman helped to establish the field of medical mycology at Tulane University.

Pharmacists:

Pharmacy has long held a unique distinction among the 31 subspecialties in the Medical Service Corps. Long before there was a Medical Service Corps, and before there were Allied Scientists or Optometrists in the Navy, there were already uniformed pharmacists. On June 17, 1898, as part of the act that established the Hospital Corps, Congress authorized the appointment of 25 warrant officer pharmacists into the Navy. Over the next four decades, pharmacists could be found serving in a host of positions aboard ship and shore ranging from patient administration and managing medical supplies to dispensing medicines.

Between 1941 and 1947, pharmacists could serve as both active duty warrant officers and as hospital-volunteer specialists (reservists) in the Hospital Corps. When the Medical Service Corps was founded pharmacists

represented about 15 percent of the 251 plankowners—the inaugural class of pharmacists included former World War II pharmacy-warrant officers, reservists and even line officers.

In December 1948, Lt. Paula Towle of Sacramento, Calif., became the first woman pharmacist in the Medical Service Corps. Towle had been a practicing hospital pharmacist in the 1930s after earning a degree in pharmacy from the University of California, San Francisco. On March 19, 1943, Towle was commissioned in the WAVES as an officer of the line and did not serve in her profession again until after the war. She left the service at war's end and returned in 1948. Over the next 22 years, Towle served as the Chief Pharmacy Officer at Naval Hospitals Bremerton, Pensacola, St. Albans, Chelsea, as well as aboard the hospital ship USS Repose (AH-16) during its deployment to Vietnam.

Until her retirement in 1970, Towle was one of only two female pharmacists in the Navy. The other was Katherine "Kay" Keating of Pueblo, Colorado.

Keating first enlisted in the Navy in 1942 as a radioman in the WAVES. After the war she left the Navy and obtained a B.S. in Pharmacy with the hope of returning to the Navy and serving either as Hospital Corps or Pharmacy officer. In 1948, she re-enlisted in the Navy, however, instead of medicine she was again assigned as an enlisted radioman. She continued to serve in this role until 1950 when she was permitted to transfer to the Hospital Corps. Two months later she was commissioned as an Ensign in the Medical Service Corps and was now only the second commissioned female pharmacist in the Navy.

Over the next two decades Keating continued to collect accolades and distinctions while earning the respect of her peers in Navy Medicine. In 1953, she became the first female pharmacy officer and first woman Medical Service Corps officer assigned to a ship (hospital ship USS Haven). When she retired in 1972, Keating earned the distinction as the first woman in the Navy to have served in the rate of seaman and the rank of Captain.

Physical and Occupational Therapy:

The rapid growth of Navy Medicine during the World War II and, with it, the formation of convalescent and rehabilitation services necessitated trained occupational therapists (OTs) and physical therapists (PTs) to oversee the treatment, recreation, educational and civil readjustment programs for Sailors, Marines and Soldiers returning home.

Early in World War II, the Navy competed with the Army to recruit specialists in these fields to run rehabilitation programs at specially designated hospitals and at newly established convalescent facilities located at former luxury resorts, hotels and at National Parks like Yosemite. Although some trained PTs and OTs joined the service as Navy nurses, most were commissioned through the Navy's women's reserve program (WAVES).

Among the Navy's first physical therapists were Lt. Signe Brunnstrom and Lt. Edith Vail who spearheaded groundbreaking amputee care programs at Naval Hospitals Mare Island, Calif., and Philadelphia, Penn., respectively. Decades after leaving the Navy, Brunnstrom served as the namesake for the "Brunnstrom Approach," a sequence of six stages for patients recovering from stroke-related hemiplegia.

Throughout World War II, Naval Hospital Philadelphia served as the military's premier rehabilitative facility. It program emphasized the importance of re-education, social adjustment, counselling, and pre-vocational training—all of which was designed to "restore the patient's confidence and to further [their] self-sufficiency." Many of these innovative practices can be credited to work of Lt.(j.g) Frances Helmig who founded the hospital's occupational therapy program in 1943—considered the first ever hospital occupational therapy program in the Navy.

At war's end, as the WAVES program began to phase out, many of the PTs and OTs left the service creating a void in the Navy's rehabilitation program. The Navy increasingly turned to specially trained nurses like Lt. Ruth Moeller to fill this need. Moeller had originally entered the Nurse Corps as a reservist in 1939. During the war she served aboard the hospital ship USS Solace (AH-5) and at the Navy's Convalescent Hospital (or Special Hospital) at Sun Valley, Idaho. In 1946, Moeller was one of 18 nurses the Navy sent to the Baruch Center of Physical

Medicine of the Medical College of Virginia for physical therapy training. Between 1946 and 1953, fifty three Navy nurses graduated from this program, most would eventually transfer to the Medical Service Corps in the 1950s, among Ruth Moeller. Moeller later earned the distinction as the first physical therapist to achieve the rank of 0-6.

In 1948, several WAVES PTs and OTs returned to the service. Two of them became the first representatives of their specialties within the Medical Service Corps.

Physical therapist Lt. (j.g.) Virginia J. Eager Lott of Lemon Grove, Calif., was commissioned in the Regular Navy in 1948 becoming the first PT in the Medical Service Corps. That same year, Lt. (j.g.) Maria Emiliana Aquino of San Pueblo, New Mexico, was commissioned as both the first OT in the Regular Navy and the first OT in the Medical Service Corps. Aquino also holds the additional distinction as the first woman of Native American ancestry to serve in the Medical Service Corps.

Dietetics and Food Management:

Like many of the other Medical Service Corps specialties, Dietetics and Food Management pre-dates the founding of the corps.
In the first decades of the U.S. Navy, the shipboard surgeon and surgeon's mate acted in the role of "proto-dietician"—prescribing diets for sick and injured sailors and ensuring that naval vessels were sufficiently supplied with provisions to ward off dietary diseases like scurvy.
For the first decades of the twentieth century, Navy nurses typically took on the role of hospital dieticians. And hospital diet kitchens and kitchen personnel came under the jurisdiction of nurses, most of whom had some training in dietetics and cookery.

The Navy's Nurse Corps shortage in World War I necessitated the hiring of the first civilian dieticians. In 1918, the Bureau of Medicine and Surgery (BUMED) appointed 30 female dieticians and assigned them to 13 naval hospitals. Among these pioneers was Doris Daniels who sought to "professionalize" the specialty by emphasizing the science of dietetics and delineating the roles for dieticians. While stationed at naval hospitals Great Lakes, Mare Island, and Philadelphia, Daniels helped spearhead the Navy's first courses of instruction on dietetics specially designed for physicians, nurses, pharmacists and hospital corpsmen.

After the war, BUMED began sending Navy nurses to civilian institutions like the Miss Frances Farmer School of Cookery in Boston, Massachusetts for advanced training in dietetics. The Farmer School—founded in 1902 by its namesake—was noted for taking the "scientific approach" to food preparation and nutrition. Between 1923 and 1930, 43 Navy nurses graduated from the school including future Nurse Corps Superintendent, Captain Nellie DeWitt. Many of the nurse graduates of this program—and others that followed—served in dietician billets at naval hospitals through the 1940s.

With the advent of the WAVES, dieticians began entering the Navy as commissary officers in the Navy Supply Corps. In World War II, 60 dieticians entered the Supply Corps through the WAVES program. By the end of the war, commissary officers could be found at naval hospitals and training centers managing messes, directing food procurement programs, and working in subsistence development laboratories perfecting rations for sailors and Marines.

In World War II, Lt. Lucille Rose Clark of Fargo, North Dakota served as one of the first WAVES commissary officers. Remaining in service after the war, Clark was one of the first women selected by the Navy for Regular Duty. And in January 1949, Clark transferred to the Medical Service Corps earning the distinction as the first dietician in the corps.

Women's Specialists Section:

On June 29, 1951, with the Armed Forces facing a shortage of nurses serving in health care roles, the Department of Defense issued Directive 750.04-1 which ordered that all nurses serving as dietitians, occupational therapists

and physical therapists abandon these “non-nursing health care” roles. In addition, training nurses in these specialties was to be discontinued.

At the time the Navy typically turned a growing number of Medical Service Corps officers as well as its Nurse Corps to fill these roles. In wake of this directive, the Secretary of the Navy issued a directive to the Bureau of Medicine and Surgery (BUMED) (dated February 12, 1952) for establishing the Women’s Specialist Section of the Medical Service Corps designed to remedy the expected shortage. For next 29 years, this professional section of the Medical Service Corps was to oversee the administration and recruitment of dieticians, occupational therapists and physical therapists and ensure the Navy retained these critically needed specialists.

The growth of this section was gradual. In 1953, the Women’s Specialist Section recruited 19 new specialists from the civilian sector (nine occupational therapists, seven physical therapists, and three dieticians). During this calendar year, under the authority of BUPERS Reserve Instruction 1210.2, four Navy reserve nurses (three physical therapists and one occupational therapists) were also permitted to transfer into the Medical Service Corps.

By May 1, 1954, the Women’s Specialist Section was comprised of 41 officers representing the three specialties, most of whom were recruited directly into the Medical Service Corps from the civilian sector. The numbers were soon bolstered with the admission of active duty Navy nurses into the Medical Service Corps. On June 21, 1956, Congress enacted Public Law 84-606 which allowed Navy nurses serving in these specialties to transfer to the Medical Service Corps’ Women’s Specialist Section. Among the 26 active duty nurses was Lt. Cmdr. Elizabeth O’Malley. As a Medical Service Corps officer, O’Malley would hold the distinction as the first woman to be appointed as the head of the Women’s Specialist Section, and in turn the first woman assistant to the Chief of the Medial Service Corps.

O’Malley was originally commissioned in the Nurse Corps in November 1943. Over the next 14 years she served as a Nurse-Dietician at Naval Hospitals at Great Lakes, Key West, Portsmouth, Sampson, San Diego, and St. Albans, as well as aboard the hospital ship USS Consolation. On June 9, 1957, she resigned from the Nurse Corps; the very next day she executed her oath as a Medical Service Corps Officer.

In 1962, O’Malley was succeeded by Cmdr. Ruth Moeller, a former Nurse-physical therapist. Moeller was to become the first full-time head of the section and dedicated her tenure to recruiting these specialties, developing enlisted talent through the Navy Enlisted Dietetic Program, and advocating for new opportunities for both men and women serving in these specialties. In 1965, BUMED requested (and was granted) permission from the Secretary of the Navy to begin admitting men into these specialties. The Women’s Specialist Section was now known as the “Medical Specialist Section.” In 1981, following the passage of new legislation that introduced greater structure for managing the specialties in the Medical Service Corps, the Medical Specialist Section was disestablished.

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